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PARSONS HSUE & DE RUNTZ LLP
655 MONTGOMERY STREET
SUITE 1800
SAN FRANCISCO, CA 94111

EXAMINER

PATEL, GAUTAM

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 12/19/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary

Application No.

09/505,556

Applicant(s)

MOORER, JAMES A.

Examiner

Gautam R. Patel

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-14, 33-51, 71-82 and 89-94 is/are pending in the application.
- 4a) Of the above claim(s) 33-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-14, 71-79, 81, 82 and 89-94 is/are rejected.
- 7) ☒ Claim(s) 80 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Amendment

1. This is in response to amendment filed on 11-17-03 (Paper # 12).
2. Claims 4-14, 33-51, 71-82, and 89-94 remain for examination.

Election/Restriction

3. The Examiner would like to thank the Applicants for canceling non-elected claims.

Newly submitted amended independent claims 33, 34, 35, and 36-51 are now directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Amended independent claim 33, now is directed to two types of recording media, which was group **D** in the original selection and since group **C** was selected as the group to be examined, amended claim 33 now qualifies as a non-elected claim.

Similarly claim 34 now is directed to reduced digital reproduction and control information for reading low resolution audio which was group **D** in the original selection and since group **C** was selected as the group to be examined, amended claim 34 now qualifies as a non-elected claim.

Similarly independent amended claim 35, now is directed to recording residual control information on CD-ROM portion of the CD which was group **D**, in paper no. 8, dated 3-12-03. Therefore amended claim 35 now qualifies as a non-elected claim.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively **elected by original presentation** for prosecution on the merits. Accordingly, **claims 33, 34 and 35 are withdrawn from consideration as being directed to a non-elected invention**. See 37 CFR 1.142(b) and MPEP § 821.03.

NOTE: The Applicants are strongly cautioned to take care and not to introduce, inadvertently and or otherwise, non-elected limitations into the claims or subject matter.

Action on claims 4-14, 71-82, and 89-94.

Claim Rejections - 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 7-8 and 71, 74-76 and 81 are rejected under 35 U.S.C. § 102(e) as being anticipated by Aoki et al., US. patent 6,243,220 (hereafter Aoki).

As to claim 7, Aoki discloses the invention as claimed [see Figs. 1-9] including deriving from audio signal data, a plurality of signals, control information storing signal on first medium storing reminder on second medium and storing control information comprising:

deriving from the audio signal data, comprising:

a plurality of digital signals [fig.6, signals marked 1-5 and 6a], wherein a first of said plurality of digital signals is a first two track audio signal [col. 8, line 65 to col. 9, line 30 and fig. 6A-6B]; and

control information [signals b1 to b6], wherein a reproduction of said audio information can be produced from said plurality of digital signals by use of said control information [col. 5, lines 11-63 and col. 8, , line 65 to col. 9, line 30 and fig. 3B and 3C];

storing said first digital signal on a first medium [fig. 2, Area A] [col. 6, lines 3-64 and col. 8, line 65 to col. 9, line 30 and fig. 3B and 3C];

storing the remainder of said plurality of digital signals on one or more second media [fig. 2, area B] [col. 5, lines 11-63 and col. 8, , line 65 to col. 9, line 30 and fig. 3B and 3C]; and

storing the control information [col. 5, lines 11-63 and col. 8, line 65 to col. 9, line 30 and fig. 3B and 3C].

NOTE: Fig. 2, AREA A stores audio signals, while area B stores audio and control signals. Fig. 6 shows process of combining these signals to produce a unified signal with help of this control information. Also col. 3, lines 34-54. Since group C is elected in the original presentation, and two media such as CD and DVD are in group D, it is taken that the Applicants are referring to different area of media.

5. As to claim 8, Aoki discloses:

said first medium is a rewritable memory [VTR] [col. 4, lines 15-16].

6. As to claim 71, Aoki discloses:

deriving from said N-channel audio signal [4 channel] a two channel representation [col. 4, lines 18-61];

recording said two channel representation on a first medium [fig. 2 AREA A] [col. 5, lines 5 to col. 6, line 6] ;

forming additional information, comprising:

a residual dependent upon the difference between said N channel audio signal and said two channel representation [col. 5, lines 5 to col. 6, line 6]; and

control information, including data that can be used to recombine said residual with said two channel representation to reconstruct an M channel representation of said N-channel audio signal, wherein M is greater than two but not greater than N [col. 5, lines 5 to col. 6, line 6];

recording said residual on one or more second media [area] [fig. 2, AREA B] [col. 5, lines 5 to col. 6, line 6]; and

recording said control information [col. 5, lines 5 to col. 6, line 6].

NOTE: Fig. 2, AREA A stores audio signals, while area B stores audio and control signals. Fig. 6 shows process of combining these signals to produce a unified signal with help of this control information. Also col. 3, lines 34-54. Since group C is elected in the original presentation, and two media such as CD and DVD are in group D, it is taken that the Applicants are referring to different area of media.

7. As to claim 74, Aoki discloses:

wherein M equals N [col. 5, line 49 to col. 6, line 17 and Table 1 at col. 1-2].

NOTE: When only two channels are selected $M=N$ [col. 4, lines 34-43].

8. As to claim 75, Aoki discloses:

said residual contains $(N-2)$ independent channels [col. 5, line 49 to col. 6, line 17 and Table 1 at col. 1-2].

NOTE: When 4 channels are selected residual is $N-2$ [col. 4, lines 34-43].

9. As to claim 76, Aoki discloses:

said residual contains less than $(N-2)$ independent channels [col. 5, line 49 to col. 6, line 17 and Table 1 at col. 1-2].

NOTE: When monaural instead of two channel are selected $N-2$ is less than 2 [col. 4, lines 34-43].

10. As to claim 81, Aoki discloses:

recording of said first medium is a rewritable memory [col. 4, lines 15-34].

Claim Rejections - 35 U.S.C. § 103

11. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be

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patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 79 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoki as applied to claim 71 above:

As to claim 79, Aoki discloses all of the above steps. Aoki does not specifically disclose that deriving from the N-channel audio signal a two channel representation is based upon a linear combination of a finite set of spatial harmonics, or combination of zero and first order spatial harmonics which is linearly independent of said two channels representation.

However, it is well known in the art that rather than arranging speakers in some particular pattern before system can reproduce the specified number of spatial harmonics, whatever speaker locations that exist are used as parameters in the electronics encoding. Also use of linear combination of a finite set of spatial harmonic does not change method of recording or storing audio on a CD.

13. Claims 4-6, and 9-14, 72-73, 77-78, 82 and 89-94 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoki as applied claims 7-8 above and in view of Lowe et al., US. patent 5,695,401.

As to claim 9, Aoki discloses all of the above steps, including a plurality of digital signals, control information and storing reminder of digital signals on one or more second medium. Aoki does not specifically disclose type of the medium can be other than VTR, such as CD, DVD or magnetic media and that information stored on these media can be compressed to save space, which is at premium.

However, it is well known in the art that most recording media are interchangeable depending upon requirement of the system also CD [ROM and RAM]

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are well known for storing audio information and compression of any digital information can be stored on these media. Also, Lowe clearly discloses that it well known in the art to use CD-ROM, CD-RAM, hard drive of any suitable storage medium; and regardless of the storage format [and hence medium] used, the audio storage requirement are same as long as they have large capacity and random access capability [col. 5, lines 19-35 and col. 6, lines 1-9]. Lowe also discloses:

compressing said first digital signal prior to storing on said first medium [col. 5, lines 36-55].

Both Aoki and Lowe are interested in improving the storage mechanism for audio information in most efficient way.

Therefore, one of ordinary skill in the art at the time of invention would have realized that the storage system of Aoki is not limited to any one particular type of storage only. It would have been obvious to have used a CD-ROM or CD-RAM media for storage of audio information in the system of Aoki as taught by Lowe because one would be motivated to store audio information on all kind available storage media for easy transportation and also for comparability of different kind of systems which are available on the market.

14. As to claim 10, Lowe discloses:

said first medium is the audio portion of a compact disk (CD), wherein said first digital signal can be reproduced on a conventional CD player [col. 5, lines 36-58].

NOTE: If they can be stored on CD; inherently they can be reproduced and played from the CD.

15. As to claim 11, Lowe discloses:

said one or more second media is the CD-ROM portion of said CD [col. 5, lines 36-55].

16. As to claim 12, Lowe discloses:

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said control information is stored in the CD-ROM portion of said CD [col. 7, lines 1-32].

17. As to claim 13, Aoki discloses:

said audio signal audio comprises more than two channels [col. 4, lines 35-43].

18. As to claim 14, Aoki discloses:

said reproduction of said audio signal comprises a second two track audio signal of higher resolution than a reproduction based on said first two track audio signal alone [col. 4, lines 35-43].

NOTE: When more tracks are added inherently resolution becomes higher. See also fig. 6A.

19. As to claim 4, it is rejected for the same reason as claim 7 above. As to the added limitation storing audio data on CD; Aoki does not specifically disclose type of the medium can be other than VTR, such as CD, DVD or magnetic media and that information stored on these media can be compressed to save space, which is at premium.

However, it is well known in the art that most recording media are interchangeable depending upon requirement of the system also CD [ROM and RAM] are well known for storing audio information and compression of any digital information can be stored on these media. Also, Lowe clearly discloses that it well known in the art to use CD-ROM, CD-RAM, hard drive of any suitable storage medium; and regardless of the storage format [and hence medium] used, the audio storage requirement are same as long as they have large capacity and random access capability [col. 5, lines 19-35 and col. 6, lines 1-9]. Both Aoki and Lowe are interested in improving the storage mechanism for audio information in most efficient way.

Therefore, one of ordinary skill in the art at the time of invention would have realized that the storage system of Aoki is not limited to any one particular type of storage only. It would have been obvious to have used a CD-ROM or CD-RAM media

for storage of audio information in the system of Aoki as taught by Lowe because one would be motivated to store audio information on all kind available storage media for easy transportation and also for comparability of different kind of systems which are available on the market.

20. As to claims 5-6, they are claims corresponding to claims 14 and 13 respectively and they are therefore rejected for the same reasons set forth in the rejection of claims 14 and 13 respectively, supra.
21. As to claims 72-73, they are claims corresponding to claims 10-11 respectively and they are therefore rejected for the same reasons set forth in the rejection of claims 10-11 respectively, supra.
22. As to claim 77 it is a claim corresponding to claim 9 and it s therefore rejected for the same reasons set forth in the rejection of claim 9, supra.
23. As to claim 78, Lowe discloses:
control information contains data on how said residual is compressed [col. 5, lines 36-55].
24. As to claim 82, Lowe discloses:
compressing said two channel representation prior to its recording [col. 5, lines 36-55].
25. As to claim 89, it is rejected for the same reason as claim 4, above. As to the added limitation of M channel representation of said N-channel audio data, wherein M is greater than two but not greater than N; Aoki discloses these aspects [see col. 4, lines 35-43].
26. As to claim 90, Lowe discloses:

said additional audio information is compressed [col. 5, lines 36-55].

27. As to claim 91, Lowe discloses:

control information contains data on how said additional audio information is compressed [col. 5, lines 36-55].

NOTE: Control information inherently has to disclose how data is compressed for the system to work.

28. As to claim 92, Aoki discloses:

wherein M is equal to N [col. 5, line 49 to col. 6, line 17 and Table 1 at col. 1-2].

NOTE: When only two channels are selected $M=N$ [col. 4, lines 34-43].

29. As to claim 93, Aoki discloses:

said additional audio information contains (N-2) independent channels [col. 5, line 49 to col. 6, line 17 and Table 1 at col. 1-2].

NOTE: When 4 channels are selected residual is N-2 [col. 4, lines 34-43].

30. As to claim 94, Aoki discloses:

said additional audio information contains less than (N-2) independent channels [col. 5, line 49 to col. 6, line 17 and Table 1 at col. 1-2].

NOTE: When monaural and two channels are selected N-2 is less than N-2 [col. 4, lines 34-43].

Aoki, Lowe, and other references were cited as prior art references in paper no. 9, mailed 4-11-03.

31. Applicant's arguments filed on 11-17-03 (Paper # 12) have been fully considered but they are not deemed to be persuasive for the following reasons.

32. In the REMARKS, the Applicant argues as follows:

A) That: "claim 7 describes a process of taking a *single* [original emphasis] audio signal and deriving a plurality of signals from it, then storing a first of these on a first medium and the rest on a second medium. As again described above, this is in opposition to the teachings of Aoki which describes storing multiple, independent audio signals on the *same* [original emphasis] media." [page 7, para. 4; REMARKS].

FIRST: Exactly as claim 7, Aoki discloses taking a single audio signal [see fig. 1B, signal going into unit 20] and deriving a plurality of signals [sync pattern, ID subcode video, audio, audio-mode etc.] from it [col. 4, lines 18-61 and col. 5, lines 5 to col. 6, line 6].

SECOND: Here it is taken that the Applicants are really referring to different areas of media and NOT two different kind or type of media. If the Applicants are referring to two different distinct type of media, there are several problems with that interpretation. One; specification does NOT disclose TWO kind of media such as CD, DVD or MD etc. specification simply refers to CD only. Two; and this two type of media introduces 112 1st problem into the claim.

THIRD: Two media type claims are in group D of the restriction, which was not elected. Group C was elected in original presentation.

FOURTH: Also, the Applicants themselves admit that "In a principle embodiment, this additional audio data, or "residual", is stored in a CD-ROM zone **on the same physical disc** [emphasis added]" [page 9, para. 3; REMARKS]. So by definition the Applicants are referring to two different areas on the same physical disk and NOT two type of media. As to that end, Aoki clearly discloses two separate media area storing control and audio information exactly as disclosed and claimed by the Applicants.

B) That: "Concerning independent claim 71, this claim contains similar features to claim 7 and is believed allowable for reasons similar to those discussed above with respect to claim 7." [page 8, para. 1; REMARKS].

Please see explanation in paragraph 32, section A), above.

C) That: "As indicated by the added emphasis, the lower resolution version (the reduced digital reproduction") of the two original channel signal (the master recording") is stored on a first media, while additional audio data is stored at different location.

....

Concerning claim 34, this is drawn to the same aspect of the present invention as claim 33" [page 10, para. 2-4; REMARKS].

Since these claims are removed from further consideration as being drawn to group D, arguments regarding them are moot.

D) That: "Concerning claim 10, the cited location of Lowe (column 36-55) provides no description of an "audio portion of a compact disk (CD), wherein said first digital signal can be reproduced on a conventional CD player." The cited location describes only the use of CD-ROM and video data. There is no suggestion of audio data playable in a standard CD player, as opposed to video data in a CD-ROM player." [page 12, para. 4 to page 13, para. 1; REMARKS].

FIRST: The Applicants are correct, that the typographical error was made in pointing towards line numbers. However, it should be pointed out that storing video and audio together has been known for a very long time.

SECOND: Lowe does indeed disclose that he is storing audio and video together [see fig. 2, unit 12,14, marked DIGITAL VIDEO/AUDIO STORAGE]. The cited lines should have read lines 36-58.

E) That: "Considering claims 11 and 12, although Aoki mentions a number of media in the cited location, including CD-ROM, there is no indication or suggestion of storing audio data derived from the same audio signal stored in the standard, audio CD portion in CD-ROM portion of the same physical CD. [page 13, para. 2; REMARKS].

FIRST: It seems the Applicants are arguing limitation which NOT part of the claim 11 and 12. Claims 11 and 12 simply claims "said one or more second media is the CD-ROM portion of said CD" and said control information is stored in the CD-ROM portion of said CD". These limitation are very well covered by cited portion.

SECOND: As to the limitation of claim 7 [on which claims 11 and 12 depends], i.e., "storing audio data derived form the same audio signal", has already been covered in arguments regarding claim 7. See para. 33, section A), above.

F) That: "concerning claim 14, the office action refers to column 4, [lines] 35-43, of Aoki. The Applicant can find no discussion or suggestion of the resolution or the signal, either in the cited portion or elsewhere in Aoki. Further, the Office Action states: NOTE: When more tracks are added inherently resolution becomes higher," This is respectfully submitted to be incorrect: the resolution and the number of tracks are distinct and independent aspects of the audio signal ...the adding of track does not increase the level resolution, but only increases the number tracks." [page 13, para. 3; REMARKS].

FIRST: The reason there is no discussion in Aoki, because it is an inherent aspect as already explained in the "NOTE" portion.

SECOND: The Examiner agrees that resolution and number of tracks are two different things. However when audio data is stored on a "track" they both are now related. By storing extra details [of audio portion] on extra track resolution is inherently increased. Also the Applicants argument that adding extra tracks only increases tracks not resolution, is not found to be convincing. Why would one add extra tracks at all if they are of no use? Adding extra tracks for the sack of adding simply takes up space and increases cost of the system for no good reason. This is not done in real word.

G) That: "with respect to claim 7, the teachings of Aoki are quite specific to the particular video tape media described therein. [page 13, para. 5; REMARKS].

FIRST: As noted previously Aoki was NOT used for CD storage at all. Lowe was.

SECOND: Also a careful examination of claim 7 shows, the limitation of CD is NOT in that claim at all. The Examiner is trying to address what is being claimed and not what else the specification may disclose.

H) That: "Concerning claims 78, it is respectfully submitted that the cited location of Lowe (col. 5, lines 36-55) does not describe "wherein control information contains data on how said residual is compressed" ... Further, claim 78 states that the compression data is for the residual signal, not the two-channel representation on the first media." [page 14, para. 5; REMARKS].

FIRST: It is clear that Lowe stores AND compresses both audio and video data [see fig. 2, units 12, 14]. Lowe also shows a separate audio compressor [again see fig. 2, unit connected to output of unit 57].

SECOND: When ALL data is compressed, inherently main and residual, both data also gets compressed. It will be wastage of bandwidth of channel to compress only some data not the other.

I) That: "Claim 91 is additionally believed allowable ...It is respectfully submitted the Examiner is improperly stating what is inherent without providing supporting evidence. For instance, if a compression is part of a given standard for a data type, it need not be explicitly specified in the control data." [page 14-15, para. 7 and 1; REMARKS].

This is not found to be persuasive, because Lowe clearly discloses various compression techniques [col. 5, line 40]. When different techniques are used one must inherently have to have the information about what technique was used for that particular compression to decompress that particular data. Yes for a given standard of data type that information is not needed but when several compression techniques are used [as disclosed by Lowe], one must provide that information.

J) That: "Claims 35-47 [page 15-16; REMARKS].

These arguments are moot since these claims are now claiming non-elected groups.

K) That: "(Concerning claim 74, the office action states: NOTE: when only two channels are selected, $M=N$ ". It should be noted that claim 71, upon which claim 74 depends, explicitly states that "N is an integer greater than two" and "M is greater than two but greater than N", so that neither N or M is equal to 2. Also concerning the NOTE in the office action with respect to claim 76, the meaning of the comment is unclear, but appears to be inconsistent with the requirement that both $N>2$ and $M>2$. [page 8, para. 7; REMARKS].

FIRST: Claim 74 very explicitly claims **M equals N**. Now the Applicants are arguing that neither M or N is equal to 2. The examiner is pointing out that $M=N$, and not that M or N is equal to 2.

SECOND: with regard to claim 76 "NOTE" simply means that when monaural is selected as compared to two-channel residual for monaural will inherently contain less channel than that for the two channel. [Yes the Examiner should have explained in little more details].

L) That: "Claims 79 and 80 ..They are further believed to be allowable as Moorer is not applicable as prior art against the present application." [page 17, para. 1; REMARKS].

The Applicants are correct. See new rejection of claim 79 and objection of claim 80.

Allowable Subject Matter

33. Claim 80 is objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 80 is allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose a method for storing an N-channel audio signal, wherein N is greater than two which includes step of "defining residual which comprises a combination of zero and first order spatial harmonics which is linearly independent of said two channel representation". It is noted that the closest prior art, Aoki and Lowe shows a similar apparatus which reads and writes on CD and stores various audio data channels. However Aoki and Lowe fails to disclose that the residual comprises a combination of zero and first order spatial harmonics which is linearly independent of said two channel representation.

34. Applicant's amendment necessitated the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO **EXPIRE THREE MONTHS** FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

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Contact information

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is (703) 308-7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.

A handwritten signature in black ink, appearing to read "Gautam R. Patel", with a horizontal line extending from the end of the signature.

Gautam R. Patel
Patent Examiner
Group Art Unit 2655

December 17, 2003